



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,164	04/07/2004	Michael Bourgoïn	07844-647001/P600	1268

21876 7590 09/02/2009
FISH & RICHARDSON P.C.
P.O. Box 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
GUERTIN, AARON M	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
09/02/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No. 10/821,164	Applicant(s) BOURGOIN ET AL.	
	Examiner AARON M. GUERTIN	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/08/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7, 11, 12, 15-18, 20-25, 29, 30 and 33-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-7, 11, 12, 15-18, 20-25, 29, 30 and 33-41 is/are allowed.
- 6) ☒ Claim(s) 42, 44, 46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Claims 1, 8-10, 13, 14, 19, 26-28, 31, and 32 are cancelled
- Claims 2-7, 11, 12, 15-18, 20-25, 29, 30, and 33-69 are presented for examination.
- Claims 48-69 are newly added claims.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 49, 51 and 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 49 comprises the language "generating a second processing stage... generating a third processing stage...", However claims 42 and 48 that precede claim 49 both do not include a "generating a first stage" nor do either of the claims suggest it. Claim 49 is indefinite for including a second and a third stage without a first stage. For the purpose of examination the limitations in claim 48 will be read as the generated first stage which appears to have been mistakenly excluded (as per the copending allowed claims that do include these limitations as a first stage).
4. Claims 51 and 53 are similar in scope and are rejected under the same rationale.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 42-47, 49, 51, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,462,748 (Fushiki) in view of U.S. Publication No.: US 2002/0031256 A1 (Hiramatsu), in further view of U.S. Publication No.: US 2002/0083859 A1 (Hauck).

7. Regarding claim 42, Fushiki teaches a machine-implemented method ([Column 1, lines 12-15] - *relates generally to computer graphics, and more particularly to the use of a computer to perform various color processing operations... on a color object.*) comprising: **improving color accuracy of conversion of an image color space of an image by affecting two or more processing stage definitions of a transform-defining element in a color profile associated with a defined image processing pipeline** ([Fig. 3, (70a-70e)] and [Column 6, lines 47-65] - *By way of example, FIG. 3 illustrates an exemplary sequence of color processing operations...*); capable of translating a first color space ([Fig. 4, (100)]) to a second color space ([Fig. 4, (102)]); processing an image (executing the transform) using the color profile; each of the stages of processing between color spaces is considered a processing stage ([Fig. 4,

(124, 126, and 128)] [Column 2, lines 37-65] - *In view of the foregoing, the present invention provides a system and method for processing color objects that supports both a perceptual-based color space and a physical-based color space and utilizes the two color spaces in an integrated way to optimize the quality of the color-processing...*

[Column 8, lines 9-34] - *the ICC profile 124 of the sRGB space can be used together with the ICC profile 122 of the input device to convert the color data 120 to the sRGB color space 100 to form the color object 70... the color data 126 or 128 are used to create a color object in the respective color space...);*

improving accuracy based on image parameters, such that the defined image processing pipeline transcodes an image component; the two or more processing stage definitions being

affected ([Column 2, lines 37-65] - *the present invention provides a system and method for processing color objects that supports both a perceptual-based color space and a physical-based color space and utilizes the two color spaces in an integrated way to optimize the quality of the color-processing. The graphics engine of the system includes a module for converting a color object from the perceptual-base color space to the physical-based color space and from the physical-based color space to the perceptual-based color space. During a graphic processing process, which may involve various perceptual-based and physical-based operations, the graphics engine automatically converts the color object being processed from one color space to the other depending on the type of color operations to be performed... In this way, optimal quality of the processed color object and performance of the processing system may be achieved in an integrated manner that is transparent to the end user. Input and output color*

conversions may be performed to interface with input and output devices that use different color spaces... [Column 5, lines 16-30] - *Referring now to FIG. 2, the present invention is directed to a way to process color objects that is capable of providing optimal quality of the color processing. In accordance with the invention, the optimal processing quality may be achieved by performing the various color operations in their respective appropriate color spaces. Specifically, the color-processing system in accordance with the invention supports at least a perceptual-based color space and a physical-based color space, which are preferably RGB spaces. Depending on whether the color operation is perceptual-based or physical-based, a color object 70 being processed may be dynamically converted to the color space appropriate for the operation before the operation is performed.), **processing, by at least one processor, the image using the defined image processing pipeline** ([Column 5, lines 31-49] - *In the illustrated embodiment, the color processing system includes a graphics engine 72 responsible for controlling and performing various computer graphics and color operations...); and **outputting the processed image to an electronic device*** ([Column 5, lines 31-49] - *The data of each of these object types are rendered by a renderer 82 into a format suitable for visual representation such as displaying or printing...).**

Fushiki teaches the limitations of claim 1 above, however, Fushiki fails to specifically teach of wherein an image comprising **improving accuracy based on transcoding an image component according to a range and an offset; and the image comprising a parameterized encoding of the image color space with the**

image parameters defining the range and the offset of the image component of the image; and the affecting comprising defining a mapping of the range and the offset of the transform-defining element and fitting output to input data scopes between two of the processing stage definitions; the range and the offset are defined in a multidimensional interpolation table.

Hiramatsu is analogous art that further teaches of a machine-implemented method ([0002] - *The present invention relates to a color matching method, a color matching device, a color matching program, and a computer readable record medium that stores the color matching program... which are used for converting digital image data reproducible by a device such as a CRT...*); wherein a image comprises **improving accuracy based on transcoding an image component according to a range and an offset** (improving color translation ([0027] - *the precision of color matching improves when compared to the case in which the color matching is performed using a pre-fixed conversion parameter. In addition, higher computation processing speed for parameter determination can be achieved when compared to the case in which the conversion parameter is determined based on numerous color data...* and [0028] - *Therefore, it becomes possible to provide a color matching method that allows appropriate color matching that takes into account the characteristics of the input color space and the output color space to be performed at a higher speed... using the range* [0025] - *image data within the color reproduction range of the first device is converted using a conversion parameter into image data within the color reproduction range of the second device...*) and an offset of an image component of the image

([0085] - *the color space compression processing on the absolute color space is performed... of the input image data as the target of conversion. Specifically, four conversion processes are performed including correction of a white point, compression (including expansion; the same applies below) in the direction of chroma, correction of hue, and compression in the direction of lightness...*) (offsets exist in the correction of components), [Fig. 4, (s411)] and [0096] - *the color space compression processing on the absolute color space is performed and output data represented in the $L^*a^*b^*$ space is obtained, in step S411, the output data is converted into data represented in a color space dependent on the output device...*); **and the image comprising a parameterized encoding of the image color space with the image parameters defining the range and the offset of the image component of the image; and the affecting comprising defining a mapping of the range and the offset of the transform-defining element and fitting output to input data scopes between two of the processing stage definitions** (([0002] - *The present invention relates to a color matching method, a color matching device, a color matching program, and a computer readable record medium that stores the color matching program... which are used for converting digital image data reproducible by a device such as a CRT...*); wherein a image comprises a parameterized encoding of an image color space ([0082] and [0083] - *data of a white point and a black point of the input color space and data of a white point and a black point of the output color space are obtained... (conversion parameter) is set based on each white point data obtained... a color space compression parameter is derived for appropriately converting data within the input color space into data within*

Art Unit: 2628

output color space...) with image parameters defining a range ([0025] - *image data within the color reproduction range of the first device is converted using a conversion parameter into image data within the color reproduction range of the second device...*) and an offset of an image component of the image ([0085] - *the color space compression processing on the absolute color space is performed... of the input image data as the target of conversion. Specifically, four conversion processes are performed including correction of a white point, compression (including expansion; the same applies below) in the direction of chroma, correction of hue, and compression in the direction of lightness...*) (offsets exist in the correction of components), [Fig. 4, (s411)] and [0096] - *the color space compression processing on the absolute color space is performed and output data represented in the $L^*a^*b^*$ space is obtained, in step S411, the output data is converted into data represented in a color space dependent on the output device...);* **the range and the offset are defined in a multidimensional interpolation table** (Fig. 4, S401 and S402) comprises **commingling (mixing) of image channels** (L or A or B) ([0155] - *Referring to FIG. 10, first, specific color data is obtained in step S1001. Unlike the first embodiment, here, $L^*a^*b^*$ data of a white point, a black point, a blue point, a red point, and a green point of the input color space and $L^*a^*b^*$ data of a white point and a black point of the output color space are obtained...*) [0156] - *The amount of movement of a color having lightness between the white point and the black point is calculated by interpolation according to each L-value when the correction processing of the white point is actually performed...);* **multidimensional** (interpolation using more than one data set (e.g. Interpolation requiring at least 2 known

data points to construct need data points within the range of the discrete set))

interpolation that governs commingling (mixing) of image channels ([0155] -

*Referring to FIG. 10, first, specific color data is obtained in step S1001. Unlike the first embodiment, here, $L^*a^*b^*$ data of a white point, a black point, a blue point, a red point, and a green point of the input color space and $L^*a^*b^*$ data of a white point and a black point of the output color space are obtained... [0156] - The amount of movement of a color having lightness between the white point and the black point is calculated by interpolation according to each L-value when the correction processing of the white point is actually performed...).*

Hiramatsu further teaches the benefits of using conversion parameters when color matching and processing, and how by taking image characteristics with respect to color spaces and using said characteristics during processing, that higher computation processing speeds can be achieved ([0024] - *allow an appropriate color matching that takes into account characteristics of the input color space and the output color space to be performed at high speed... [0027] - conversion parameter is determined based on the respective data related to the specific color of the first device and the second device... In addition, higher computation processing speed for parameter determination can be achieved when compared to the case in which the conversion parameter is determined based on numerous color data...).*

All of the elements of claim 1, are known in Fushiki in view of Hiramatsu, the only difference is the combination of know elements into a single system and method.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include in Fushiki the image conversion parameters taught by Hiramatsu, as the benefits of using conversion parameters when color matching and processing reduce computation time with pre processing and increased computation processing speeds within color generation.

Fushiki and Hiramatsu teach the limitations of claim 1 above, however, Fushiki and Hiramatsu fail to specifically teach that the **color profile is generated**.

Hauck is analogous art that further teaches of **generating a color profile** ([0010] - *The present invention provides a method for generating a color profile...*).

All the elements of claim 1 are known in Fushiki and Hiramatsu in view of Hauck, the only difference is the combination of known elements into a single system and method.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include generating a color profile in Fushiki as doing so would provide the means for custom image generation that is flexible for a plurality of input and output devices, and avoiding color restrictions based on device or material.

8. Regarding claim 43, Fushiki, Hiramatsu, and Hauck teach the limitations of claim 42 above, the rationale disclosed in the rejection incorporated herein, Fushiki further teaches of **the affecting comprises affecting three or more processing stage definitions for the defined image processing pipeline, based on the image parameters**, ([Fig. 3, (70a-70e)] and [Column 6, lines 3-25] - *FIG. 3 illustrates an*

exemplary sequence of color processing operations... Two perceptual-based operations, gamut mapping and saturation adjustments, are performed... The next color processing operation is alpha-masking, and the graphics engine 72 determines that this operation should be performed in the physical-based color space 102...), which include the two stages, of the multistage transform such that the color profile effects chromatic adaptation ([Fig. 3, (70a-70e)] and [Column 6, lines 3-25] - Optimal quality of color processing is achieved by selectively performing a color processing operation in the more suitable one of the two color space... [Column 6, lines 46-65] - Two perceptual-based operations, gamut mapping and saturation adjustments, are performed on the color object 70 by corresponding operation modules 110 (FIG. 2) of the graphics engine...).

Hiramatsu further teaches of **wherein the image parameters further define a white point of the image color space, such that the defined image processing pipeline transcodes the image component according to the range and the offset, and effects chromatic adaptation according to the white point** (a parameterized encoding of an image color space ([0027] - *the precision of color matching improves when compared to the case in which the color matching is performed using a pre-fixed conversion parameter. In addition, higher computation processing speed for parameter determination can be achieved when compared to the case in which the conversion parameter is determined based on numerous color data...* and [0028] - *Therefore, it becomes possible to provide a color matching method that allows appropriate color matching that takes into account the characteristics of the input color space and the*

Art Unit: 2628

output color space to be performed at a higher speed... [0082] and [0083] - data of a white point and a black point of the input color space and data of a white point and a black point of the output color space are obtained... (conversion parameter) is set based on each white point data obtained... a color space compression parameter is derived for appropriately converting data within the input color space into data within output color space...) with image parameters defining a range ([0025] - *image data within the color reproduction range of the first device is converted using a conversion parameter into image data within the color reproduction range of the second device...*) and an offset of an image component of the image ([0085] - *the color space compression processing on the absolute color space is performed... of the input image data as the target of conversion. Specifically, four conversion processes are performed including correction of a white point, compression (including expansion; the same applies below) in the direction of chroma, correction of hue, and compression in the direction of lightness...*) (offsets exist in the correction of components), and a white point of the image color space ([0082] and [0083] - *data of a white point and a black point of the input color space and data of a white point and a black point of the output color space are obtained... (conversion parameter) is set based on each white point data obtained...*). Hiramatsu also teaches of wherein a color profile comprises affecting the multistage transform based on the image parameters ([Fig. 4, (s411)] and [0096] - *the color space compression processing on the absolute color space is performed and output data represented in the $L^*a^*b^*$ space is obtained, in step S411, the output data is converted into data represented in a color space dependent on the output device...*).

All the elements of claim 43 are known in Fushiki, Hiramatsu, and Hauck, the only difference is the combination of known elements into a single system and method.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include defining white point and chromatic adaptation as a factor in the multi dimensional interpolation table of Fushiki, as doing so would provide the means of an improved image by correcting colors via the offset and range within for white point and chromatic adaptation.

9. Regarding claim 44 it is similar in scope to claim 42 (the rationale disclosed in the rejection incorporated herein). However claim 44 includes **a storage device having a software product tangibly embodied therein, the software product comprising instructions operable to cause one or more data processing apparatus to perform operations**. Fushiki teaches of a storage device machine readable medium within [Column 3, lines 32-51] (as further disclosed in the rationale provided in claim 19 above).

Therefore, claims 44 and 45 are rejected under the same rational as claims 42 and 43 and in further view of the rationale provided by Fushiki [Column 3 lines 32-51] as claim 19 above.

10. Claim 45 is similar in scope to claim 43 and is rejected under the same rationale.

11. Claims 46 and 47 are similar in scope to claims 42 -45 and are rejected under the same rationale.

12. Claims 48, 50, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,462,748 (Fushiki), U.S. Publication No.: US 2002/0031256 A1 (Hiramatsu), U.S. Publication No.: US 2002/0083859 A1 (Hauck) in view of U.S. Publication No.: US 2003/0228016 A1 (Shimada).

13. Regarding claim 48, Fushiki, Hiramatsu, and Hauck teach the limitations of claim 42 above, the rationale disclosed in the rejection incorporated herein, however, Fushiki, Hiramatsu, and Hauck fail to specifically teach of **wherein the affecting comprises making entries of the multidimensional interpolation table positive and normalizing the entries in the multidimensional interpolation table.**

Shimada is analogous art that further teaches of **wherein the affecting comprises making entries of the multidimensional interpolation table positive and normalizing the entries in the multidimensional interpolation table** (according to Fig 4, the interpolation table values are positive; [Fig. 4], [0052] thru [0055] - *The output profile storage unit 210 typically stores color signals X''' , Y''' , and Z''' corresponding to discrete color signals R' , G' , and B' as a three -dimensional look-up table (to be abbreviated as 3D LUT hereinafter). The output profile conversion unit 207 searches the*

Art Unit: 2628

3D LUT for data near the input color signals X''' , Y''' , and Z''' , and calculates output color signals R' , G' , and B' based on the found data and input color signals using a known interpolation method. The color separation conversion unit 208 converts the input color signals R' , G' , and B' into output color signals C , M , Y , and K by a known method using a color separation LUT stored in a color separation LUT storage unit 211... FIG. 4 illustrates the relationship between the input and output color signals stored in the gamma conversion LUT. The abscissa plots a normalized input color signal (e.g., $R/255$), and the ordinate plots an output color signal (e.g., R_I). Curve A represents the relationship between the input and output color signals of sRGB based on equations (1) and (2), and curve B represents the relationship between the input and output color signals based on other color characteristics different from sRGB. The values of input and output color signals at plot points are stored in the input profile storage unit 209 as a gamma conversion LUT, and an output color signal between neighboring plot points is calculated by interpolation.).

All the elements of claim 48 are known in Fushiki, Hiramatsu, and Hauck in view of Shimada, the only difference is the combination of known elements into a single system and method.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include ensuring that the entries of the multi-dimensional interpolation table positive and normalizing the values in Fushiki as doing so would provide the means for creating a more precise image color during the calculation of the color profile.

Art Unit: 2628

14. Claims 50 and 52 are similar in scope to claim 48 and are rejected under the same rationale.

Allowable Subject Matter

15. Claims 2-7, 11, 12, 15-18, 20-25, 29, 30, 33-41, and 54-69 are allowed.

The following is an examiner's statement of reasons for allowance: In light of applicant's amendments and remarks, and upon further consideration, the cited prior art fails to teach or suggest the combination of elements recited in the independent claims, as a whole.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

16. Claims 49, 51, and 53 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

17. Regarding claim 49, the rejection made under 35 USC 112 includes wherein a first processing stage has not been claimed before a second and third processing step has. Claim 49 is dependent upon claim 48 which is further dependent upon claim 42. Considering claim 49 must be read and considered in light of the claims upon which it

Art Unit: 2628

depends. Claim 49 would not be allowable by only writing it in independent format because the combination of all the limitations has been examined together. When read in light of the all previous limitations (claims 42 and 48) the final limitations of claim 49 provide a novelty by extending what was known to one of ordinary skill at the time of the invention by a new combination of elements providing said novelty. The combination of ALL of the elements provides said novelty, and NOT any particular element singly.

NOTE: The examiner reserves the right to withdraw allowability contingent on finding new art providing teachings or suggestion that the combination of elements were known or obvious to one of ordinary skill in the art at the time of the invention or if each and every element and limitation in the base claim and any intervening claims are not provided in a newly amended claim or if the 35 USC 112 rejection is not overcome.

Response to Arguments

[Allowable subject matter of claims 11, 15, 29, and 33]

18. The examiner has acknowledged the amendments and the above notice includes claims 11, 15, 29, and 33 to be allowable over cited prior art.

[Regarding the section 101 rejection]

19. The examiner has acknowledged the amendment corresponding to the rejection of claims 1-10, 13, 14, 17, and 18 regarding 35 USC 101. The amendments have positively tied the subject matter to another saturator category that accomplishes the claimed method steps and therefore qualifies said subject matter as a statutory process.

Art Unit: 2628

Therefore the rejection regarding 35 USC 101 for claims 1-10, 14, 14, 17, and 18 have been withdrawn.

[New Claims 48-69]

The arguments of claims 48-69 are moot as they are newly added. However rationale for each of claims 48-69 can be found in the office action herein, please see above for detailed conclusion.

[Regarding the section 103 rejection]

20. Applicants arguments in summary recite (Remarks, page 28) the section 103 rejections are moot for claims 10, 14, 28, and 32 by the cancellation of said claims, and claims 4 and 32 are dependent upon claims 11 and 29 and therefore for at least the same reasons that claims 11 and 29 are allowable, claims 4 and 32(as applicant has entered in the remarks), are also allowable.

The examiner has withdrawn the rejections of claims 10, 14, 28, and 32 because they are in fact cancelled. As for claims 4 and 32 (as applicant has entered in the remarks), claim 4 depends from an allowable claim and therefor is allowed for the same rationale and claim 32 has been cancelled therefore not allowable as it is no longer in consideration for patentability. The rejection of claim 4 has been withdrawn.

Art Unit: 2628

21. Applicant's arguments filed 5/08/2009 have been fully considered but they are not persuasive.

22. Applicants arguments in summary recite (Remarks, pages 23-26) the prior art cited fails to teach or suggest at least "the two or more processing stage definitions being affected during generation of the color profile, and the affecting comprising defining a mapping of the range and the offset in a multidimensional interpolation table stage of the transform-defining element".

The examiner respectfully disagrees. The term "processing stage definition" is very broad and is not further claimed to mean anything more specific than a stage at which a processing is conducted during the generation of the color profile. The examiner has cited Fushiki specifically to teach the processing stages wherein a color space transformation is completed, further Hauck specifically teaches in combination the generation of the color profile. Without further claiming how the processing stages are different within the body of the claims, Fushiki clearly reads upon the limitations. Regarding the limitation of *affecting comprising defining a mapping of the range and the offset in a multidimensional interpolation table stage of the transform-defining element...* Applicant's arguments with respect to said limitation have been considered but are moot in view of the new ground(s) of rejection.

23. Applicants arguments in summary recite (Remarks, pages 26-28) that Fushiki does not disclose or suggest at least means for "taking image parameters into account

Art Unit: 2628

across two or more processing stage definitions of a transform-defining element in a color profile associated with a defined image processing pipeline during generation of the color profile for the image," where the means for taking image parameters into account includes means for "defining a mapping of the range and the offset in a multidimensional interpolation table stage of the transform-defining element," as recited in claim 46.

The examiner respectfully disagrees. The applicant made no attempt a further defining what a parameter includes within the body of the claims. "Image parameters" is a very generic phrase that can describe anything that has to do with the development of an image or defining a process related to the image in some way that is to affect the outcome. Fushiki teaches of taking the ICC standard elements in to account while performing the color space conversion, which clearly reads on the portion of the limitations that states "taking image parameters into account across two or more processing stage definitions of a transform-defining element in a color profile ". Furthermore the pipeline as defined by Fig. 4 shows the exact elements that interact with the data that produces the final color conversion responsible for enhancing the image production on the dependent image device. Also, and according to the same rationale as provided above Hauck teaches of analogous art that specifically teaches the advantages of generating the profile.

Applicant further discloses arguments that are similarly to the arguments above wherein it is believed that the prior art fails to teach or suggest "defining a mapping of

the range and the offset in a multidimensional interpolation table stage of the transform-defining element".

The examiner respectfully disagrees, and for the same rationale as pointed out above, Applicant's arguments with respect to said limitation have been considered but are moot in view of the new ground(s) of rejection.

24. The rejections of claims 42-53 have been maintained for at least the reasons above. Any claim not specifically addressed above is rejected at least for incorporating the deficiencies of the claim upon which it depends.

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2628

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON M. GUERTIN whose telephone number is (571)270-1547. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. M. G./
Examiner, Art Unit 2628

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629